



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.      | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|----------------------|-------------|----------------------|---------------------|------------------|
| 10/817,234           | 04/02/2004  | Dennis M. Brown      | SP03-054            | 3062             |
| 22928                | 7590        | 06/09/2005           | EXAMINER            |                  |
| CORNING INCORPORATED |             |                      | LIN, TINA M         |                  |
| SP-TI-3-1            |             |                      |                     |                  |
| CORNING, NY 14831    |             |                      | ART UNIT            | PAPER NUMBER     |
|                      |             |                      | 2874                |                  |

DATE MAILED: 06/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

6

## Office Action Summary

Application No.

10/817,234

Applicant(s)

BROWN ET AL.

Examiner

Tina M. Wong

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9, and 11-19 is/are allowed.
- 6) ☒ Claim(s) 10, 20 and 21 is/are rejected.
- 7) ☒ Claim(s) 15-17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/1/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Claim Objections***

Claims 15-17 and 21 are objected to because of the following informalities:

In regards to claim 15, claim 15 recites the limitation "said fiber grooves" on line 1.

There is insufficient antecedent basis for this limitation in the claim.

In regards to claim 16, claim 16 recites the limitation "said fiber groove" on line 1. There is insufficient antecedent basis for this limitation in the claim.

In regards to claim 17, claim 17 is objected to because claim 17 is directed to an apparatus (spool) and is dependant on a method claim, claim 7. The Examiner believes claim 17 should be dependent on claim 1, and therefore, claim 17 will be examined as if dependent from claim 1.

In regards to claim 21, claim 21 is objected to because claim 21 is directed to a method of making a spool and is dependant on an apparatus claim, claim 11. The Examiner believes claim 21 should be dependent on claim 20, and therefore, claim 21 will be examined as if dependent from claim 20.

Appropriate correction is required.

### ***Double Patenting***

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The

Art Unit: 2874

filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claim 10 is provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 2 of copending Application No. 10/817,235. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Claims 20 and 21 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 9 and 10, respectively, of copending Application No. 10/817,235. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant Admitted Prior Art (AAPA).

In regards to claim 10, AAPA discloses a spool (10) comprising a hub (12) sandwiched between two flanges (14), where at least one of the flanges includes a smoothly curving arcuate fiber groove (15, 20) extending substantially to the outer edge of the flange and the groove being capable of reversing the direction of the fiber (20). (Background of Invention, Figure 1, Figure 2) But, AAPA does not explicitly disclose the groove to be at an angle less than 15 degrees relative to the tangent line. However, it would have been obvious at the time the invention was made to

Art Unit: 2874

a person having ordinary skill in the art to limit the angle to be less than 15 degrees, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233. Furthermore, Applicant does not state in the specification the criticality of the claimed angle.

In regards to claim 20, AAPA provides two flanges and a hub, and then assembling the hub and flanges into a spool. But, AAPA fails to disclose trimming the flange preforms to a desired size. However, trimming any object or preform in order to obtain the desired size would have been obvious at the time the invention was made to a person having ordinary skill in the art, since it is always preferred to obtain a desired size on the basis of suitability for the intended use.

In regards to claim 21, AAPA discloses winding the fiber around the hub.

Claims 10, 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,802,237 to Pulido.

In regards to claim 10, Pulido discloses a hub (14) sandwiched between two flanges (12, 12a) where at least one flange includes at least one smoothly curving arcuate fiber groove (24a, 24b, 24c) on a side facing the hub, where the fiber groove extends to the outer edge of the flange. But Pulido fails to specifically disclose the groove capable of reversing the direction of the fiber. However, in order to unwind the fiber for use, the groove must be capable of reversing the direction of the fiber. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have a groove capable of reversing the direction of the fiber. Furthermore, Pulido does not explicitly disclose the groove to be at an angle less than 15 degrees relative to the tangent line. However, it would have been obvious at the time the

Art Unit: 2874

invention was made to a person having ordinary skill in the art to limit the angle to be less than 15 degrees, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233 Furthermore, Applicant does not state in the specification the criticality of the claimed angle.

In regards to claim 20, Pulido provides two flanges and a hub, and then assembling the hub and flanges into a spool. But, Pulido fails to disclose trimming the flange preforms to a desired size. However, trimming any object or preform in order to obtain the desired size would have been obvious at the time the invention was made to a person having ordinary skill in the art, since it is always preferred to obtain a desired size on the basis of suitability for the intended use.

In regards to claim 21, Pulido discloses winding the fiber around the hub.

***Allowable Subject Matter***

Claims 1-9 and 11-19 are allowed.

In regards to claims 1-6 and 11-19, the prior art of record fails to disclose or reasonably suggest a spool comprising a hub sandwiched between two flanges where the hub further contains a living hinge forming a cavity in the periphery of the hub, such that during a temperature variation between -40°C to 85°C, the outer surface circumference of the hub changes and therefore changes the size of the opening of the hinge **and** the outer surface diameter of the hub remains substantially constant.

In regards to claims 7-9, the prior art of record fails to disclose or reasonably suggests a method of making a spool comprising forming a hub pipe with a living hinge, cutting off

required length of the hub pipe so that the hub pipe has a living hinge, providing two flanges and assembling the hub and the flanges into a spool.

The prior art of record in this application fails to disclose or reasonably suggest a living hinge as part of a hub within a spool where the living hinge changes the outer surface circumference of the hub while the outer surface diameter of the hub remains substantially constant within 0.05%. (Specification [0024]). The closest prior art of record is AAPA and U.S. Patent 5,802,237 to Pulido relied upon in the above rejections.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. References A-F discuss alternative cassettes and spool configurations with at least one flange and one hub for the purpose of winding or storing fibers.

The documents submitted by applicant in the Information Disclosure Statement have been considered and made of record. Note attached copy of form PTO-1449.

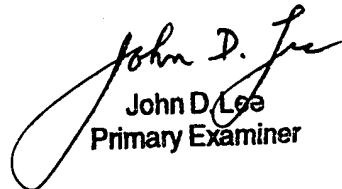
This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tina M. Wong whose telephone number is (571) 272-2352. The examiner can normally be reached on Monday-Friday 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
TMW

  
John D. Lee  
Primary Examiner